

CLAIM AMENDMENTS

The following changes to Claims 1-42 were made in an earlier-filed Preliminary Amendment, but such changes are repeated here because the application has not yet been the subject of an Office Action. In addition to such changes, please add Claims 43-58, as set forth herein.

1. - 2. (Cancelled)

3. (Currently Amended) A display apparatus for ~~irradiating light generated by a light source onto a light modulating element, and for forming a display image plane with the light transmitted through or reflected by the light modulating element,~~ comprising:

a light source;

a light modulating element for modulating light irradiated from the light source;

input image calculating means for performing a predetermined calculation according to an input display signal; and

light quantity controlling means for controlling a light quantity irradiated onto said light modulating element according to a result of the calculation,

wherein said light quantity controlling means sets a change rate of the light quantity, such that the change rate ~~at for~~ decreasing the light quantity is smaller than a change rate ~~at for~~ increasing the light quantity.

4. - 7. (Cancelled)

8. (Currently Amended) The display apparatus according to Claim 3, further comprising an adjusting circuit for adjusting a display signal according to a result of the calculation.

9. - 11. (Cancelled)

12. (Currently Amended) The display apparatus according to Claim 3, wherein said calculation is ~~calculation to give~~ provide maximum luminance in said display signals inputted within a predetermined period.

13. - 15. (Cancelled)

16. (Currently Amended) The display apparatus according to Claim 3, wherein said calculation is ~~calculation to give a number of data exceeding~~ provide a predetermined luminance among luminance data included in said display signals inputted within a predetermined period include.

17. - 19. (Cancelled)

20. (Original) The display apparatus according to Claim 3, further comprising sensors for detecting light quantity irradiated onto said light modulating element, wherein said light quantity controlling means controls the light quantity based on the calculation results and a detection results by said sensors.

21. - 22. (Cancelled)

23. (Original) The display apparatus according to Claim 3, comprising an adjusting circuit for adjusting display signal according to said calculation result, and a sensor for detecting light quantity irradiated onto said light modulating element, wherein said adjusting circuit performing the adjustment according to the calculation result and the detection result by said sensor.

24. - 26. (Cancelled)

27. (Original) The display apparatus according to Claim 3, comprising means for setting quantity of changing irradiation light quantity, so as to set changing quantity or change rate of said irradiating light quantity.

28. - 32. (Cancelled)

33. (Original) The display apparatus according to Claim 3, wherein said light quantity controlling means are means to be disposed between said light source and said light modulating element to control light quantity to be irradiated onto said light modulating element from said light source.

34. - 36. (Cancelled)

37. (Original) The display apparatus according to Claim 3, wherein said light quantity controlling means is means to control voltage or current to be supplied to said light source.

38. - 42. (Cancelled)

43. (New) A display apparatus comprising:  
a light source;  
a light modulating element for modulating light from the light source;  
a memory for temporally storing an input display signal; and  
a light quantity control unit for outputting a control value, based on the input display signal, for controlling light quantity of the light.

44. (New) A display apparatus according to Claim 43, wherein said control value is determined to provide a broader dynamic range than a dynamic range where said control value is not used to conduct control.

45. (New) A display apparatus according to Claim 43, wherein said control value is determined to provide a broader displayable gray scale near black level than a displayable gray scale near black level where said control value is not used to conduct control.

46. (New) A display apparatus according to Claim 43, further comprising a diaphragm controlled by said control value.

47. (New) A display apparatus comprising:  
a light source;  
a light modulating element for modulating light from the light source; and  
a light quantity control unit for outputting a control value, based on an input image signal, for controlling light quantity of the light,  
wherein the light quantity is controlled by said control value so that a change rate of decreasing the light quantity is smaller than a change rate of increasing the light quantity.

48. (New) A display apparatus according to Claim 47, wherein said control value is determined to provide a broader dynamic range than a dynamic range where said control value is not used to conduct control.

49. (New) A display apparatus according to Claim 47, wherein said control value is determined to provide a broader displayable gray scale near black level than a displayable gray scale near black level where said control value is not used to conduct control.

50. (New) A display apparatus according to Claim 47, further comprising a diaphragm controlled by said control value.

51. (New) A display apparatus comprising:  
a light source;  
a light modulating element for modulating light from the light source; and  
a light quantity control unit for outputting a control value, based on a histogram of an input image signal, for controlling light quantity of the light, wherein the light quantity is controlled by said control value.

52. (New) A display apparatus according to Claim 51, wherein said control value is determined to provide a broader dynamic range than a dynamic range where said control value is not used to conduct control.

53. (New) A display apparatus according to Claim 51, wherein said control value is determined to provide a broader displayable gray scale near black level than a displayable gray scale near black level where said control value is not used to conduct control.

54. (New) A display apparatus according to Claim 51, further comprising a diaphragm controlled by said control value.

55. (New) A display apparatus for forming a display image comprising:  
a light source;  
a light modulating element for modulating light irradiated from the light source;

input image calculating means for performing a predetermined calculation according to an input display signal;

light quantity controlling means for controlling light quantity irradiated onto said light modulating element according to a result of said calculation;

a memory for storing the display signal subjected to the calculation by said input image calculating means, and thereafter for outputting the display signal to said light modulating element; and

sensors for detecting the light quantity irradiated onto said light modulating element, wherein said light quantity controlling means controls the light quantity based on the calculation results and detection results by said sensors .

56. (New) A display apparatus for forming a display image comprising:

- a light source;
- a light modulating element for modulating light irradiated from the light source;
- input image calculating means for performing a predetermined calculation according to an input analog display signal;
- light quantity controlling means for controlling light quantity irradiated onto said light modulating element according to a result of said calculation; and
- an adjusting circuit for adjusting the display signal according to a result of the calculation, wherein said adjusting circuit adjusts the display signal before the display signal in said analog state is converted into a digital display signal; and
- sensors for detecting the light quantity irradiated onto said light modulating element, wherein said light quantity controlling means controls the light quantity based on the calculation results and detection results by said sensors.

57. (New) A display apparatus for forming a display image comprising:

- a light source;
- a light modulating element for modulating light irradiated from the light source;
- input image calculating means for performing a predetermined calculation according to an input display signal;



light quantity controlling means for controlling light quantity irradiated onto said light modulating element according to a result of said calculation;

a memory for storing the display signal subjected to the calculation by said input image calculating means, and thereafter for outputting the display signal to said light modulating element; and

an adjusting circuit for adjusting display signal according to said calculation result, and a sensor for detecting light quantity irradiated onto said light modulating element, wherein said adjusting circuit performing the adjustment according to the calculation result and a detection result by said sensor.

58. (New) A display apparatus for forming a display image comprising:

a light source;

a light modulating element for modulating light irradiated from the light source;

input image calculating means for performing a predetermined calculation according to an input display signal;

light quantity controlling means for controlling light quantity irradiated onto said light modulating element according to a result of said calculation, wherein said light quantity controlling means sets a change rate of light quantity, such that the change rate of decreasing the light quantity is smaller than a change rate of increasing the light quantity; and

an adjusting circuit for adjusting the display signal according to the calculation result, and a sensor for detecting light quantity irradiated onto said light modulating element, wherein said adjusting circuit performs the adjustment according to the calculation result and a detection result by said sensor.